

Application No. 09/729,118

RD-27953

IN THE CLAIMS:

Please rewrite claim 1 as follows and add new claims 37 to 40 as follows:

1. (currently amended) A plate for combinatorial investigation of the catalytic production of aromatic carbonates, comprising:

a substrate comprising an array of reaction cells; and

a permeable polycarbonate film ~~covering~~ sealed to cover at least one cell to selectively permit transport of a reactant gas comprising oxygen and carbon monoxide into the at least one cell while preventing transport of a diaryl carbonate reaction product out of the at least one cell[;

wherein the permeable polycarbonate film selectively admits transport of oxygen and carbon monoxide and prohibits transport of a diaryl carbonate; and

wherein the at least one cell is formed from a polycarbonate substrate with two opposing walls comprising permeable polycarbonate film].

2. (previously presented) The plate of claim 1, wherein the permeable polycarbonate film is characterized by a diffusion coefficient of 5×10^{-10} to 5×10^{-7} cc (STP)-mm/cm²-sec-cmHg.

3. (previously presented) The plate of claim 1, wherein the permeable polycarbonate film is characterized by a diffusion coefficient of 1×10^{-9} to 1×10^{-7} cc (STP)-mm/cm²-sec-cmHg.

4. (previously presented) The plate of claim 1, wherein the permeable polycarbonate film is characterized by a diffusion coefficient of 2×10^{-8} to 2×10^{-6} cc (STP)-mm/cm²-sec-cmHg.

5. (previously presented) The plate of claim 1, wherein the permeable polycarbonate film is .0002 to .05 mm thick.

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6. (previously presented) The plate of claim 1, wherein the permeable polycarbonate film is .005 to .04 mm thick.

7. (previously presented) The plate of claim 1, wherein the permeable polycarbonate film is .01 to .025 mm thick.

8. (canceled)

9. (canceled)

10. (previously presented) The plate of claim 1, wherein the permeable polycarbonate film is a monofilm, coextrusion, composite or laminate.

11. (canceled)

12. (canceled)

13. (canceled)

14. (canceled)

15. (canceled)

16 (previously presented). The plate of claim 1, wherein the at least one cell is a concave bottomed cell with permeable film cover.

17. (canceled)

18. (canceled)

19. (canceled)

20. (canceled)

21. (canceled)

22. (canceled)

23. (canceled)

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24. (canceled)

25. (canceled)

26. (canceled)

27. (canceled)

28. (canceled)

29. (canceled)

30. (canceled)

31. (canceled)

32. (canceled)

33. (canceled)

34. (canceled)

35. (canceled)

36. (canceled)

37. (new) The plate of claim 1, wherein the at least one cell is formed from a polycarbonate substrate with two opposing walls comprising sealed permeable polycarbonate film.

38. (new) The plate of claim 1, wherein the permeable polycarbonate film is heat sealed to cover the at least one cell.

39 (new) The plate of claim 1, wherein the plate comprises a substrate comprising an array of reaction cells and a selected number of cells but not all are covered by the permeable polycarbonate film.

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40. (new) The plate of claim 1, wherein the plate comprises a substrate comprising an array of reaction cells and at least one cell is covered by the permeable polycarbonate film and at least one other cell is covered with a different film..